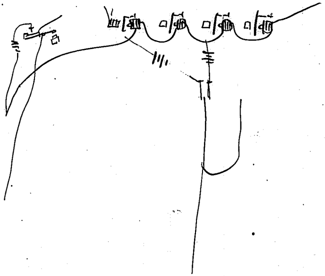
1876. General (NS-76-001)

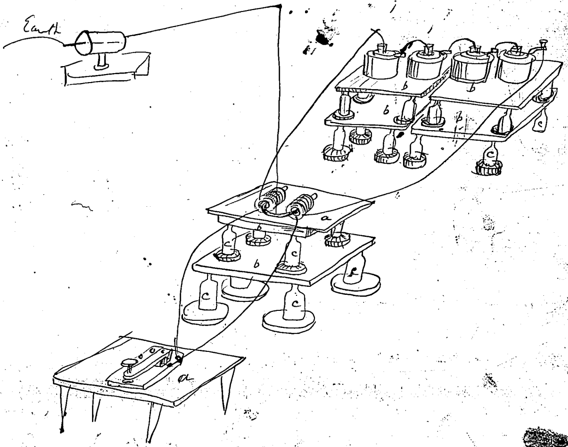
July 15 1876

TAEdison



Some further experements on the Etheric force,

Menlo Park July 24 1876



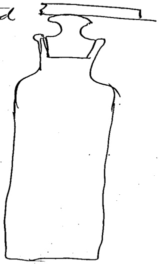
a a are hard rubber sheets = b b b are wooden trays = blackwalnut) - very dry = c c c etc are white glass bottles wiped dry

Unbound Notes and Drawings, 1874-1878

1876. General (NS-76-001)

[These pages should probably follow the document on Reel 7, Frame 346.]

1/2 inch diameter 6 inches high with roundstopped



leaving but little

bearing for the wood to rest against = under Each bottle is a piece of hard rubber polished on ~~both sides~~ 2 1/2 inches diameter, =

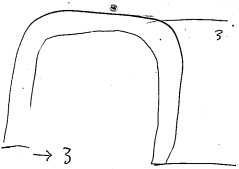
4 Cells were used, 1 1/2 size with new Zincs & just amalgamated = ~~the~~ 2 cells on one ~~set~~ of the trays & 2 on the other = The last row or bottom ~~bottles of the battery stand~~ stand on hard rubber slaps 3 by 6, polished & 1/2 inch thick =

Unbound Notes and Drawings, 1874-1878

1876. General (NS-76-001)

[These pages should probably follow the document on Reel 7, Frame 346.]

The magnet was composed of 2 Bradley spools of naked wire, Each spool having exactly 6 ohms resistance & were of the same diameter & length = inserted in the Coils was a horseshoe of brass - diameter of brass wire 5/16 length 3 1/2 inches width between prongs =



The prongs as ~~they entered~~ spool were covered with ~~thick~~ shellac over which was ~~tissue~~ paper = ~~the magnet ends~~ were conducted ~~to the key & battery~~ by off[illegible]

Unbound Notes and Drawings, 1874-1878

1876. General (NS-76-001)

[These pages should probably follow the document on Reel 7, Frame 346.]

4 wire = parafined cover =
attached to the centre of the
horseshoe was a wire also of
office wire leading to the
dark box = this wire run to
a staple driven in ~~the~~ ceiling
then to another staple down
to the box = This box was the
one used in previous experiments &
Consists entirely of hardrubber
polished into the Ends of which
are two Screws provided with
hardrubber heads. these Screws
run in brass sleeves fixed in
the head of the round rubber
box on their end are the
~~lead~~ graphite pencil points
points at the End =

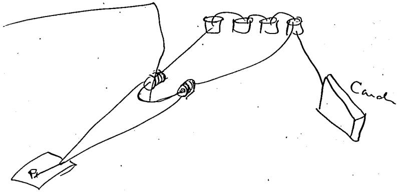
Unbound Notes and Drawings, 1874-1878

1876. General (NS-76-001)

[These pages should probably follow the document on Reel 7, Frame 346.]

July 24 =

Could get no spark at first ascertained that the graphite points did not meet properly = had them fixed, Could not get a spark ~~for~~ attached ~~one~~ a Condenser to one pole of the battery thus:



we then after few minutes trial got several sparks — detached Condenser set it down on floor 5 feet from the apparatus on one side = got several sparks = took it

Unbound Notes and Drawings, 1874-1878

1876. General (NS-76-001)

[These pages should probably follow the document on Reel 7, Frame 346.]

6

away altogether still got some sparks = ~~all~~ then for 1/2 hour could get none = put condenser within 50 feet got after long trial one spark = took condenser away but after 3/4 of an hour failed to get a spark either with condenser on one side or away altogether shewing perhaps bad adjustment of the graphite points = in fact the Screws went too tight to get a fine adjustment = are now having screw eased = afterwards couldnt get anything either with Condenser or without

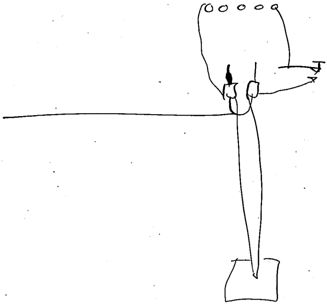
put condenser ~~over~~ one side at pole of battery at other end of spool & at Key

Unbound Notes and Drawings, 1874-1878

1876. General (NS-76-001)

[These pages should probably follow the document on Reel 7, Frame 346.]

7 inserted Key as follows:



after 20 minutes careful adjustment got very brilliant spark but couldn't get it afterwards = after trying for over an hour added 4 more Carbon 1½ cells to battery making 8 alltogether =

Unbound Notes and Drawings, 1874-1878

1876. General (NS-76-001)

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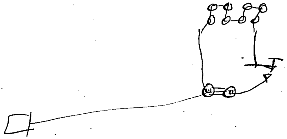
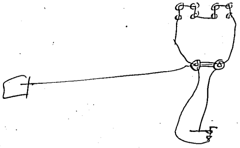
Replaced the spools with a G&Stock printer spools with iron cores; replacing key by side after this got plenty sparks,

b



Zinc cylinder laying across cores; when key was connected then got nothing after 5 minutes trial



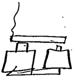
Unbound Notes and Drawings, 1874-1878

1876. General (NS-76-001)

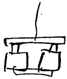
[These pages should probably follow the document on Reel 7, Frame 346.]

used the zinc cylinder laying on Cores of Electromagnets?

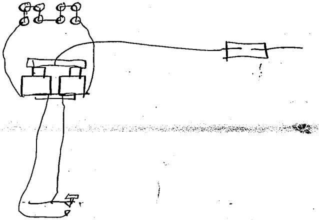
We had the zinc thus -



for fear that this threw it out of balance fixed the zinc thus.



So the whole arrangement was thus =



Unbound Notes and Drawings, 1874-1878

1876. General (NS-76-001)

[These pages should probably follow the document on Reel 7, Frame 346.]

Replaced key, got nothing =
put key back on side of magnet
got it a few seconds. then
replaced key in Centre - &
got it Beautiful Every time
appears to want a different
adjustment = had my body
divided so that equal
portions should be on a side,
removed Every object from
vacinity of magnet that
would give a greater amount
of surface or metal on one
side or the other = then
I Closed key by a glass
rod 3 feet long still got
brilliant spark =

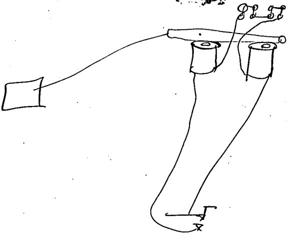
Unbound Notes and Drawings, 1874-1878

1876. General (NS-76-001)

[These pages should probably follow the document on Reel 7, Frame 346.]

So this experiment would seem to indicate that the so called polarity Experiments of Huston & Thompson were incorrectly made —

In addition to this we replaced the 6 ohm spools thus



and got it first time. this apparently shows ~~that it is in~~ Thompson & Huston Error was in the adjustment of their points = placing the Key on one side allowing of a greater length of wire in one side

Unbound Notes and Drawings, 1874-1878

1876. General (NS-76-001)

[These pages should probably follow the document on Reel 7, Frame 346.]

at the moment of break & giving a
greater spark; which was only
reduced in strength by putting the
Key in the middle =
We then put the zinc cylinder ~~in~~
~~of~~ inside [illegible] one of the spools
got spark good = then put
a cylinder in each spool
the zinc cylinders Connected
together with Copper wire got
it ok = We then replaced
the first horseshoe brass
piece = = 2 am have just
tried [illegible] another Experiment that
apparently Confirms Huston & T
& Nullifies our previous ones tonight
by putting one prong of brass Horseshoe in one
spool get spark put it in the
other get spark but when both

Unbound Notes and Drawings, 1874-1878

1876. General (NS-76-001)

[These pages should probably follow the document on Reel 7, Frame 346.]

prongs were inserted in both spools.
it took a long time to obtain any
spark shewing either a reduction
in intensity or else that something
must have thrown one side slightly
out of bal if H&T's theory is correct
Tried it with [illegible] cylinder
Connected together with copper
wire & spools placed wide
apart. by careful adjustment
Sometimes got a spark
but when one cylinder only
was used got it without
any trouble adjusting
So far I think that H&T are confirmed
as perhaps one spool of of the E.T.S
was stronger than the other or the
zinc cylinder did not touch the
would destroy the balance if there
is one & allow the spark but yet

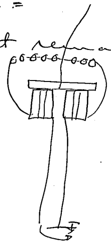
Unbound Notes and Drawings, 1874-1878

1876. General (NS-76-001)

[These pages should probably follow the document on Reel 7, Frame 346.]

~~its possible~~ according to
T & H position of the key Etc
preponderance of mass of metal
is everything ~~this~~ is the cause
this I donot find ~~to~~ be the case
but further Experiment will determine
this; perhaps better insulation
of the cylinder from the coils
is desirable =

One Experiment remains to be explained



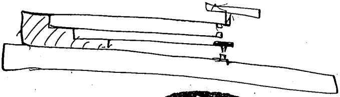
the spark was just as easily obtained
by laying the cylinder on top of
both spools as when put in
the hollow of one

Unbound Notes and Drawings, 1874-1878

1876. General (NS-76-001)

[These pages should probably follow the document on Reel 7, Frame 346.]

Nat.



Its almost [illegible] to close this Key with giving a spark in closing showing there is a rebound & break in closing =

put hardrubber bushings in magnet when upon insulating Zinc cylinder in each we got the spark Every time with Everything Central but it was at least ~~2~~ twice as weak as when only one cylinder in one spool =

Unbound Notes and Drawings, 1874-1878

1876. General (NS-76-001)

[These pages should probably follow the document on Reel 7, Frame 346.]

if the spools were laid
flat on rubber sheet didnt
get spark with both cylinders
in perhaps on account bad
adjustment of points,
put magn[illegible] got again
both cylinders ie got the weak
spark every time added
2 Condenser between Key & 1
spool (ie) tied the earth sheets
to wire ~~to increase~~ surface of
metal it didnot ~~augment~~ to
increase spark as it should
according to H. & T.

Unbound Notes and Drawings, 1874-1878

1876. General (NS-76-001)

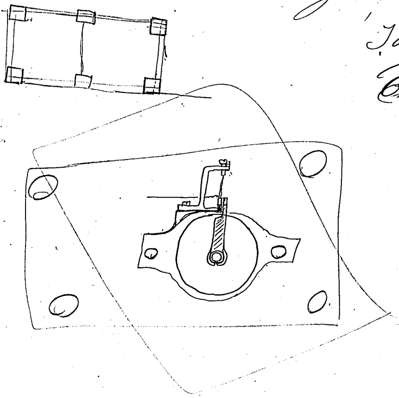
[These pages should probably follow the document on Reel 7, Frame 346.]

T A Edison

July 1876,

T A, Edison

Chas Batchelor



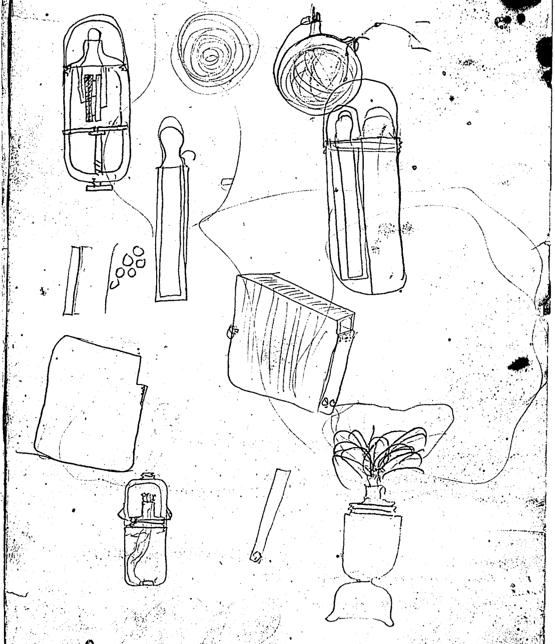
Unbound Notes and Drawings, 1874-1878

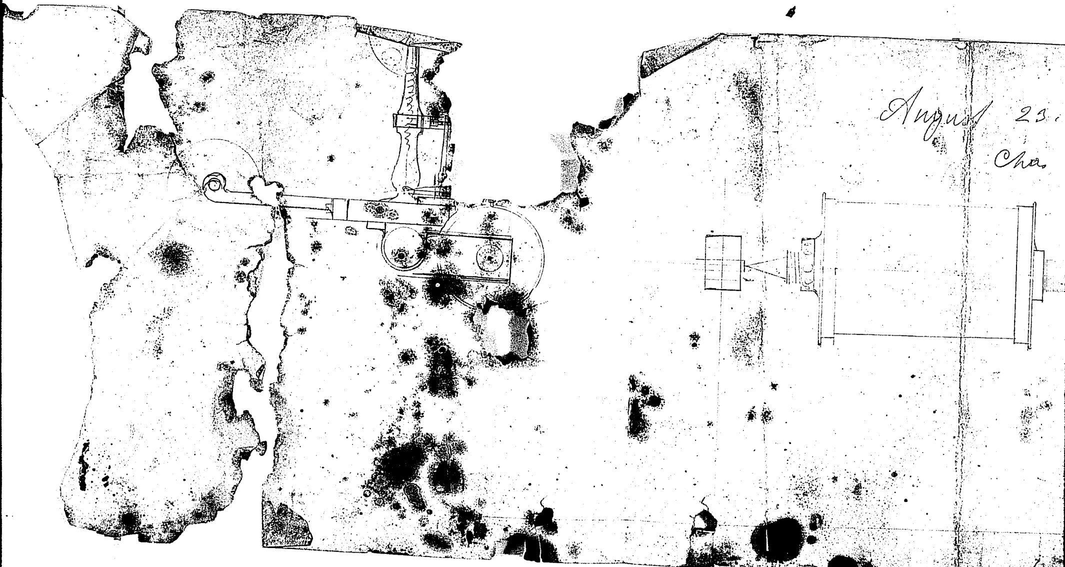
1876. General (NS-76-001)

[These pages should probably follow the document on Reel 7, Frame 346.]

[1876]

Pocket Lamp
Match Box
Postage Stamp affixer
Spectroscope,
Aberroscope,
Cigar lighter





August 23

Chas

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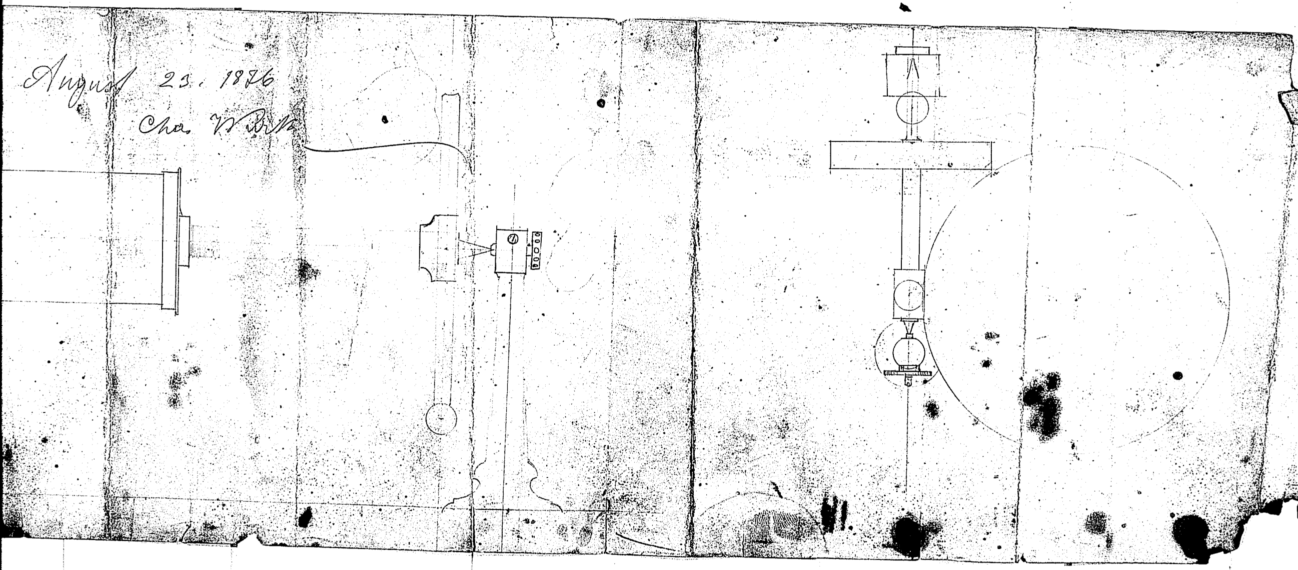
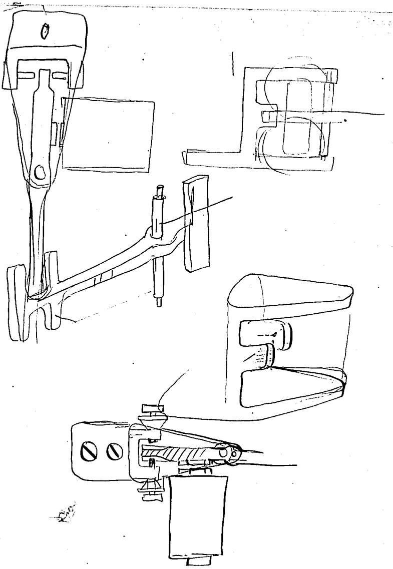
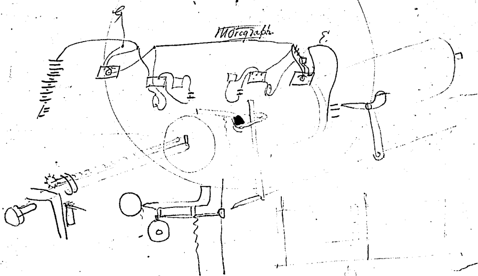


August 23. 1876
Chas.

[CONTINUED FROM THE PRECEDING FRAME]

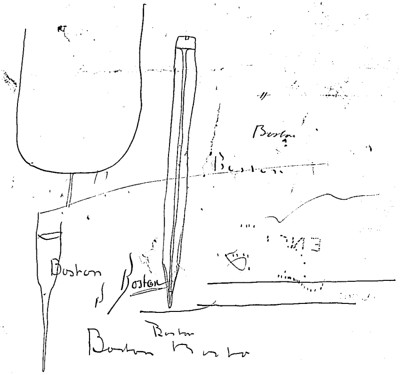


Oct 6th 1876


G
Motograph
E

Nov 10 1876
TAE

Copying Machine


Boston
Boston
Boston
Boston
Boston
Boston
Boston
Boston

Nov 6 1876

T A Edison

Unbound Notes and Drawings, 1874-1878

1876. General (NS-76-001)

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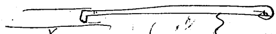

Chas Batchelor

E H Johnson

E H Johnson

750

375

3000

E H Johnson

B [redacted]

E H Johnson Esq

How do you

like this

Heron Heron

Now

Unbound Notes and Drawings, 1874-1878

1876. General (NS-76-001)

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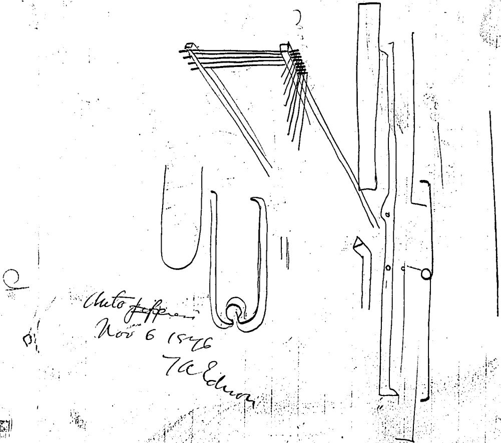


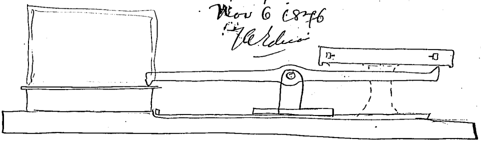
Auto ~~[illegible]~~
Nov 6 1876
TA Edison

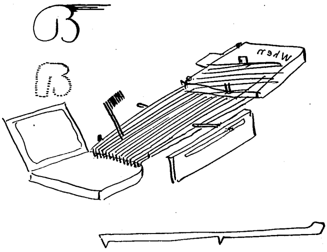
Unbound Notes and Drawings, 1874-1878

1876. General (NS-76-001)

[These pages should probably precede the document on Reel 7, Frame 350.]

Auto press
Nov 6 1876
TA Edison





Unbound Notes and Drawings, 1874-1878

1876. General (NS-76-001)

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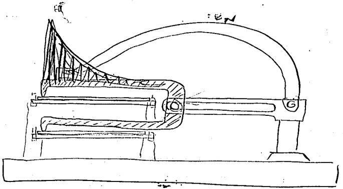

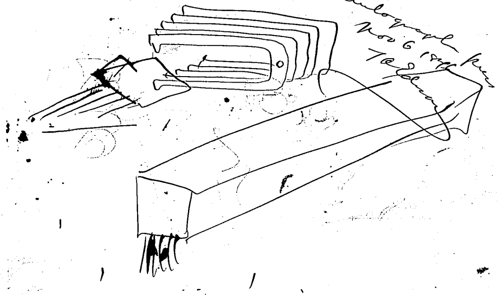

Bofan

New autographic pen
Nov 6 1876
TA Edison

Unbound Notes and Drawings, 1874-1878

1876. General (NS-76-001)

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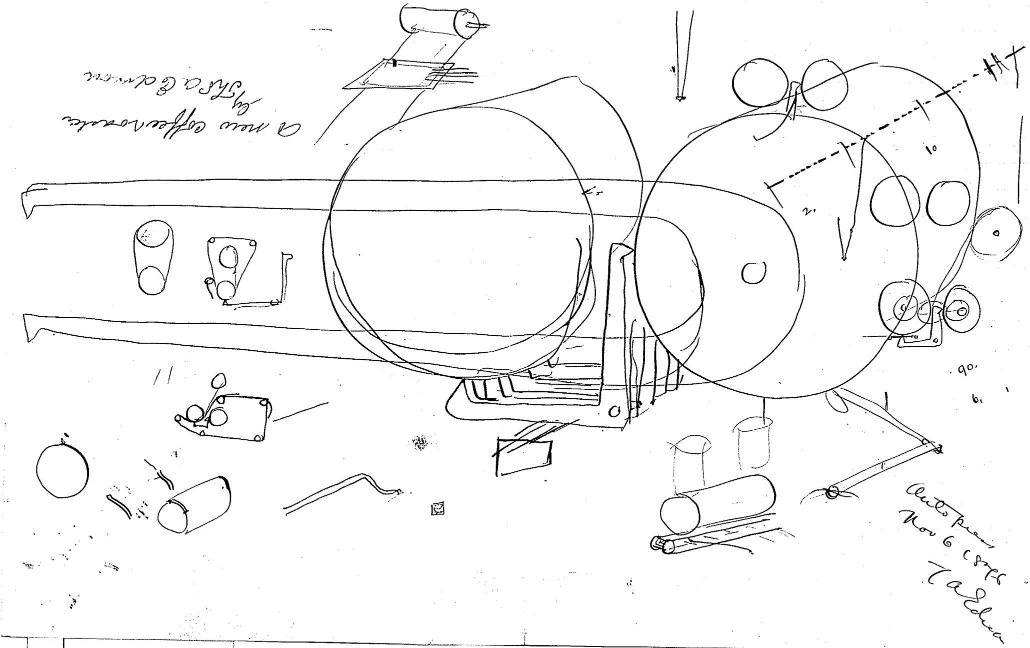
a new appearance
by T.A. Edison
10
2.
90
6.
Auto press
Nov 6 1876
T A Edison

Unbound Notes and Drawings, 1874-1878

1876. General (NS-76-001)

[These pages should probably precede the document on Reel 7, Frame 350.]

Autographic Press

Unbound Notes and Drawings, 1874-1878

1876. General (NS-76-001)

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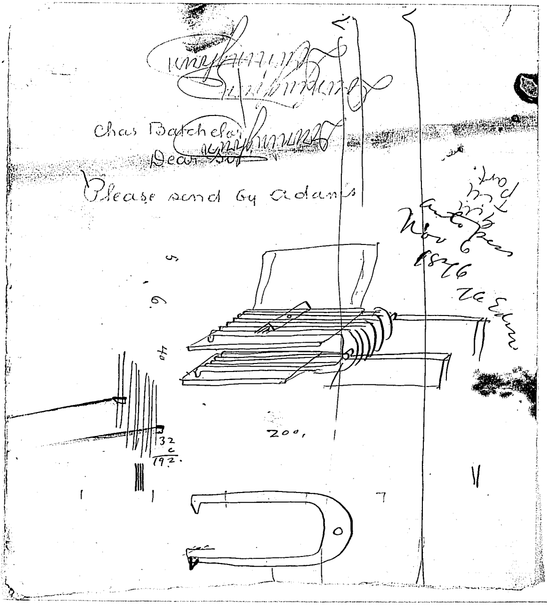


Chas Batchelor

Dear Sir

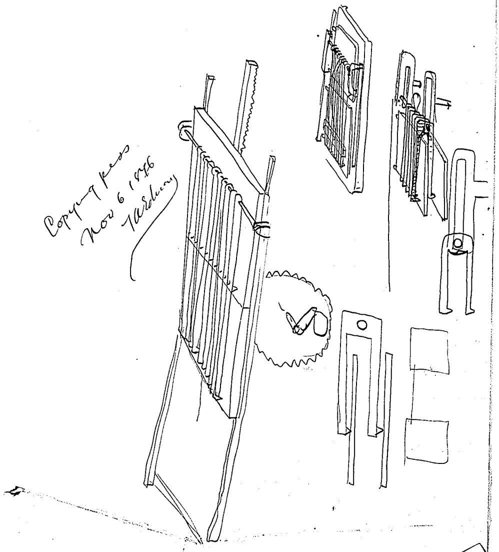
Please send by adams

Nov 6 1876

Unbound Notes and Drawings, 1874-1878

1876. General (NS-76-001)

[These pages should probably precede the document on Reel 7, Frame 350.]



Copying press
Nov 6 1876
TA Edison

Unbound Notes and Drawings, 1874-1878

1876. General (NS-76-001)

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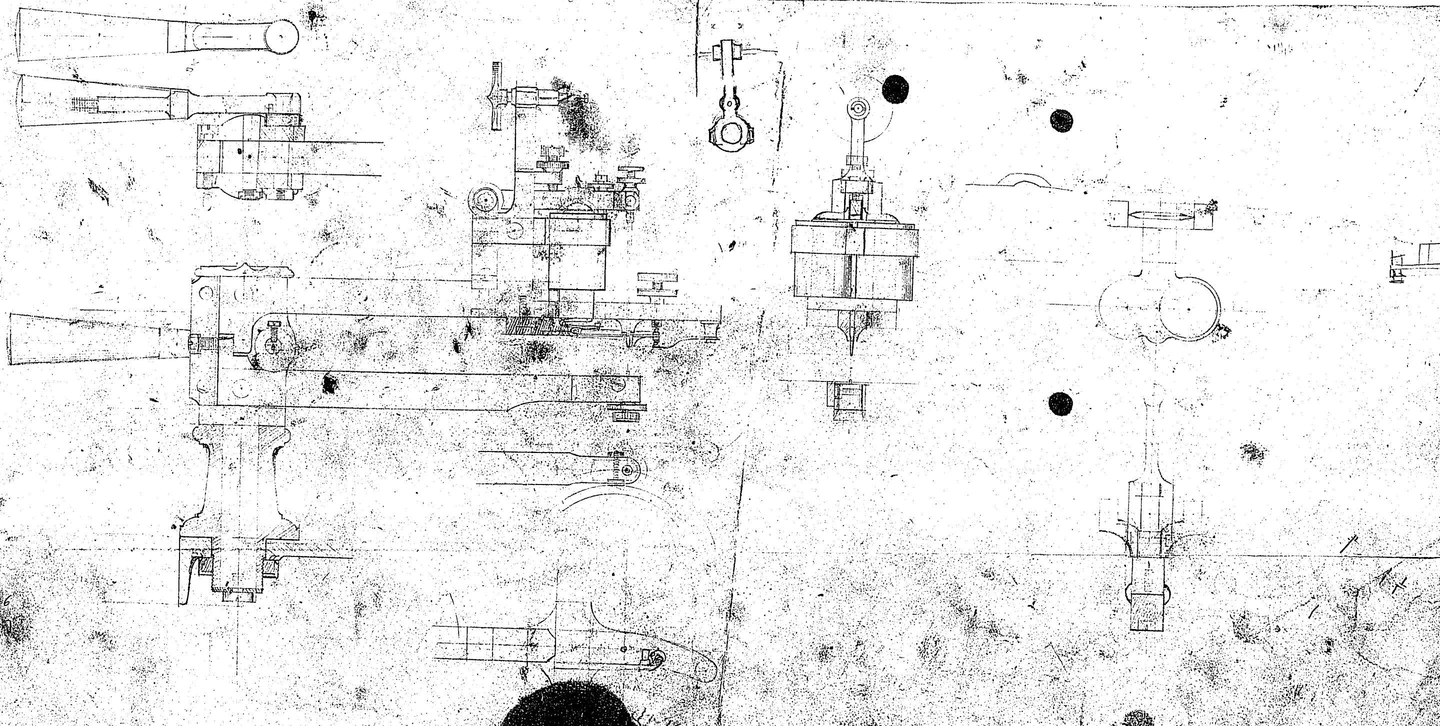

Dec 6 8 6

Cl. [illegible]

Patent